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REMARKS

This paper is responsive to the Final Office Action dated December 23, 2004. Claims 1-25 were examined. Applicant traverses all rejections.

Rejections Under 35 U.S.C. §102

Claims 1-25 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,778,212 issued to Dehnert et al. (hereinafter "Dehnert"). In responding to the remarks submitted in the previous response, the Office states that Dehnert "shows that the intermediate files are indeed a type of object file." Applicant respectfully submits that this statement confuses Dehnert's use of the ".o" extension, and ignores Dehnert's disclosure of two different types of files with ".o" extensions: intermediate ".o" files and object ".o" files. Even if the intermediate ".o" files of Dehnert are considered object files, Dehnert does not disclose or suggest Applicant's claims.

Two Different Types of ".o" Files

Dehnert discloses an intermediate ".o" file and an object ".o" file. The object ".o" file disclosed by Dehnert is a conventional binary object file, which can be processed by a conventional compiler back-end. The intermediate ".o" file disclosed by Dehnert is an intermediate representation of a source file that includes a ".B" file and "the summary information within a program unit that might later be used to construct a relationship between inter-program units," (col. 8, lines 36 – 38), which is not processed by conventional compiler back-ends. A distinction between the two different types of ".o" files is given in the summary of Dehnert as follows:

The present invention restructures the compile command to invoke only a compiler front end and a summary phase, but not a compiler back end. The compile command outputs a data file with a ".o" suffix, called an intermediate ".o" file, whereas a conventional compile command outputs a binary object ".o" file. Therefore, from the developer's point of view, the compilation command is preserved because an ".o" file is generated via compilation. It is transparent to the developer that the ".o" file has a different, extended object file format compared to the traditional object ".o" file.

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The two different types of ".o" files are further disclosed at column 9, lines 5 – 15 as follows:

The ".o" suffix of the intermediate ".o" files 404a-404n is a well known and standard suffix for binary object files that is recognized by conventional compiler tools. Therefore, the present invention recognizes two types of ".o" files: intermediate ".o" files 404a-404n and object ".o" files 210a-210n. The benefit of using the ".o" suffix for the intermediate files is that other compiler tools that require the ".o" suffix will continue to execute properly. These compiler tools, however, will not recognize the new types and sections in the ELF format.

In addition to Dehnert clearly disclosing two different types of files with the ".o" suffix, Dehnert also discloses an intermediate file with a ".I" suffix, which is discussed at col. 9, lines 38 – 50 as follows:

For each intermediate ".o" file 404a-404n, the IPA/IPO phase 406 performs analysis and optimization based on the summary information, and then generates modified or optimized versions of the program units in intermediate ".I" files 408a-408n. In an alternative embodiment, however, the IPA/IPO phase 406 could generate one combined intermediate ".I" file 408a-408n instead of separate intermediate ".I" files 408a-408n. An intermediate ".I" file 408a-408n contains one or more optimized program units that have the extra, global information incorporated into them by the IPA/IPO phase 406. Therefore, the compiler back end 410a-410n has access to all the summary information that it needs to perform aggressive optimization.

From this citation, it is clear that files with the ".I" suffix contain optimized program units with information that allows a compiler back-end to perform aggressive optimization. The rejection does not indicate whether the Office is construing Applicant's object files as Dehnert's intermediate ".o" files or object ".o" files. Although Dehnert's ".I" files include optimized program units and global information that is needed to perform aggressive optimization, the Office never contends that the object files as claimed are construed as Dehnert's ".I" files for any of the rejections.

No Disclosure or Suggestion of Object Files with Information Indicating Optimization that are Linked to Create an Executable Output File

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Regardless of how the Office construes Applicant's object files, Dehnert still does not disclose or suggest Applicant's claims. Dehnert does not disclose or suggest 1) object files that are comprised of information indicating optimization and linking of such object files to create an executable output file, or 2) extracting the information indicating optimization. Neither the intermediate ".o" files nor the I files are linked to create an executable file. Dehnert includes the following disclosure:

Similar to conventional compilation systems, the compiler back end 410a-410n generates binary object ".o" files 210a-210n. After the developer compiles all of the source files 202a-202n of the program, the developer can invoke the linkage editor 412. The linkage editor 412 inputs the object ".o" files 210a-210n resulting from the compilation and generates an executable program 214.

It is clear that Dehnert generates an executable file from object ".o" files, which are conventional binary object files according to Dehnert's disclosure. However, unlike the object files claimed by Applicant, the conventional binary object ".o" files of Dehnert are not comprised of information indicating optimization. Hence, Dehnert's intermediate ".o" files are not linked to create an executable output file and Dehnert's object ".o" files are not comprised of information indicating optimization. Therefore, as previously stated, Dehnert never discloses "optimizing the program files into object files, wherein the object files are comprised of information indicating optimization...and linking the object files to create an executable output file" as recited in claim 1, and similarly recited in claims 6, 11, 16, and 21.

Furthermore, the Office does not identify a section of Dehnert that discloses or suggests "extracting the information indicating optimization" as recited in claim 1, and similarly recited in claims 6, 11, 16, and 21. In the rejection, the Office refers to column 9, lines 18 – 21. The cited section discloses the following:

In the link step, the IPA/IPO phase 406 inputs and analyzes the intermediate ".o" files 404a-404n. The IPA/IPO phase 406 uses the summary information contained in the intermediate ".o" files 404a-404n and performs cross-program unit analysis and optimization.

Applicant respectfully submits that this section of Dehnert (and any other section of Dehnert) fails to disclose or suggest extracting information indication optimization. This section discloses using summary information. If information indicating optimization is construed as summary


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information, the section still does not disclose or suggest Applicant's claimed limitation. The Office cannot consider using summary information as disclosing or suggesting extracting information indicating optimization, unless Applicant's claim language is disregarded, which would be improper. The failure of Dehnert to disclose or suggest extracting information indicating optimization also applies to the rejection of dependent claims 3, 5, 8, 10, 13, 15, 18, 20, 23, and 25.

For at least the reasons above, Applicant respectfully submits that none of the art of record, especially Dehnert, discloses or suggests any of Applicant's claims.

Conclusion

In summary, claims 1 – 25 are in the case. All claims are believed to be allowable over the art of record, and a Notice of Allowance to that effect is respectfully solicited. Nonetheless, if any issues remain that could be more efficiently handled by telephone, the Examiner is requested to call the undersigned at the number listed below.

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Respectfully submitted,



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